United States Environmental Protection Agency | Office of Water 4601 | EPA 811-F-92-001 January 1995

EPA

The Phase V Rule

F·A·C·T·S·H·E·E·T

"Phase V added 23 contaminants to the total number of drinking water standards."

The Safe Drinking Water Act (SDWA) amendments passed by Congress in 1986 require EPA to set drinking water standards for 83 contaminants listed in the Act and an additional 25 contaminants every three years. To date, the Agency has promulgated National Primary Drinking Water Standards for 21 Volatile Organic Chemicals (VOCs), fluoride, coliform and other microbiological contaminants, 50 Synthetic Organic Chemicals (SOCs) and Inorganic Chemicals (IOCs) and lead and copper. Regulations for radionuclides (proposed July 1991), sulfate (proposed December 1994) and a revised standard for arsenic (expected to be proposed November 1995) count toward completion of the required 83.

The Phase V Rule set drinking water standards for 23 contaminants that may be found in drinking water. The regulation includes Maximum Contaminant Levels (MCLs), Maximum Contaminant Level Goals (MCLGs), requirements for monitoring, reporting, public notification and Best Available Technologies (BATs) for water treatment. In general, a low occurrence of these contaminants is expected in drinking water. Cost estimates include a monitoring cost of $5 million, State implementation costs of $10 million and annual treatment costs of $31 million, for a total of $46 million. The Phase V MCLs became effective 18 months after the promulgation date (i.e., January 17, 1994).

Table 1. MCLs & MCLGs for Inorganic and Organic Contaminants

Contaminant	MCLGs (mg/l)	MCLs (mg/l)
IOCs		
Antimony	0.006	0.006
Beryllium	0.004	0.004
Cyanide	0.2	0.2
Nickel	0.1	0.1
Thallium	0.0005	0.002
VOCs		
Dichloromethane	zero	0.005
1,2,4-Trichlorobenzene	0.07	0.07
1,1,2-Trichloroethane	0.003	0.005
Pesticides		
Dalapon	0.2	0.2
Dinoseb	0.007	0.007
Diquat	0.02	0.02
Endothall	0.1	0.1
Endrin	0.002	0.002
Glyphosate	0.7	0.7
Oxamyl (Vydate)	0.2	0.2
Picloram	0.5	0.5
Simazine	0.004	0.004
Other Organic Contaminants		
Benzo[a]pyrene	zero	0.0002
Di(2-ethylhexyl)adipate	0.4	0.4
Di(2-ethylhexyl)phthalate	zero	0.006
Hexachlorobenzene	zero	0.001
Hexachlorocyclopentadiene	0.05	0.05
2,3,7,8-TCDD (Dioxin)	zero	0.00000003

Drinking Water Standards

Maximum Contaminant Levels (MCLs): Public Water Systems are required to make sure that the water they supply meets the MCL for each Phase V chemical. These are *enforceable* standards. MCLs for Phase V chemicals are listed in Table 1.

Maximum Contaminant Level Goals (MCLGs): For each chemical, EPA has set a *non-enforceable* health goal which water systems should try to achieve. Water containing a chemical in an amount equal to or below its MCLG is not expected to cause any health problems, even over a lifetime of drinking this water.

Applicability of MCLs

MCLs established under the Safe Drinking Water Act are Federally enforceable standards for finished water provided by Public Water Supply Systems. In addition, these standards are often used as reference points for the protection and remediation of water resources under several EPA programs as well as programs implemented by other Federal agencies and States.

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Other Organic Contaminants		
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Di(2-ethylhexyl)phthalate	zero	0.006
Hexachlorobenzene	zero	0.001
Hexachlorocyclopentadiene	0.05	0.05
2,3,7,8-TCDD (Dioxin)	zero	0.00000003

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